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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,129

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Hitoshi Inoue

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EXAMINER

NILAND, PATRICK DENNIS

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,129	Applicant(s) INOUE ET AL.	
	Examiner Patrick D. Niland	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The amendment of 9/9/09 has been entered. Claims 1, 3, and 4 are pending.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 3, and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A. There is not basis in the originally filed specification for the newly added “the content of said alkali is such that, when an upper limit of an infrared absorption intensity ascribed to ionic groups to be formed upon addition of said alkali to said block copolymer is supposed to be 100% in terms of a relative infrared absorption intensity determined using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$, it ranges from an amount sufficient to give 80% of the upper limit of the infrared absorption intensity to an amount not greater than twice as much as a smallest amount of said alkali that the infrared absorption intensity reaches the upper limit.”

The entire specification, as originally filed, including the sections argued by the applicant has been considered in this regard.

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The “upper limit of an infrared absorption intensity ascribed to ionic groups to be formed upon addition of said alkali to said block copolymer is supposed to be 100% in terms of a relative infrared absorption intensity” is not described as being determined by “using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ”. Page 28, line 25 and page 29, lines 1-19 of the originally filed specification states “Subsequent to addition of an aqueous solution of sodium hydroxide, a single droplet of each solution was placed on a single-crystal plate of calcium fluoride and then dried, and its infrared absorption spectrum was measured by an infrared absorption spectrometer (“FT/IR5300”, trade name; manufactured by JASCO Corporation). On each of the two block copolymers, an absorption ascribable to carboxyl ions was observed at $1,547\text{ cm}^{-1}$. A comparison in the infrared absorption intensities ascribable to carboxyl ions between the two block copolymers was conducted based on their relative intensities determined by using as a standard the intensity of an infrared absorption ascribable to ether groups at $1,119\text{ cm}^{-1}$. Further, supposing that the relative infrared absorption intensity ascribable to carboxyl ions upon complete neutralization was 100%, the relative infrared absorption intensity ascribable to carboxyl ions in each sample to the first-mentioned relative infrared absorption intensity was defined as the degree of neutralization of the sample.” It appears from “A comparison in the infrared absorption intensities ascribable to carboxyl ions between the two block copolymers was conducted based on their relative intensities determined by using as a standard the intensity of an infrared absorption ascribable to ether groups at $1,119\text{ cm}^{-1}$.” that the standard of the “infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ” is used somehow to compare the infrared absorption intensities ascribable to carboxyl ions between the two block copolymers discussed in the specification, apparently using the IR

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absorption intensities ascribable to the carboxyl ions in addition to the IR absorption ascribable to the ether groups. This is significantly different from the instantly claimed “a relative infrared absorption intensity determined using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ”. It is not seen how one would determine a relative infrared absorption intensity “using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ”. The polymers in question contain vinyl ether monomers that do not contain carboxyl ions but would contribute to the ether group peak, e.g. page 26, lines 5-6 and 16. Thus, one cannot determine a relative infrared absorption intensity only “using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ”. This is not what the instant enabling specification appears to have done based on page 29, lines 1-19, though specifically what was done is somewhat vague even in this section of the specification.

The remainder of the instantly claimed “the content of said alkali is such that, when an upper limit of an infrared absorption intensity ascribed to ionic groups to be formed upon addition of said alkali to said block copolymer is supposed to be 100% in terms of a relative infrared absorption intensity determined using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$, it ranges from an amount sufficient to give 80% of the upper limit of the infrared absorption intensity to an amount not greater than twice as much as a smallest amount of said alkali that the infrared absorption intensity reaches the upper limit.” was not done with the claimed standard and is therefore new matter as it depends from the claimed standard and claimed relative infrared absorption intensity based on the claimed standard which is new matter.

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5. Claims 1, 3, and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. It is unclear what is intended by the instantly claimed “the content of said alkali is such that, when an upper limit of an infrared absorption intensity ascribed to ionic groups to be formed upon addition of said alkali to said block copolymer is supposed to be 100% in terms of a relative infrared absorption intensity determined using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$, it ranges from an amount sufficient to give 80% of the upper limit of the infrared absorption intensity to an amount not greater than twice as much as a smallest amount of said alkali that the infrared absorption intensity reaches the upper limit.” It is unclear which IR absorption, e.g. “infrared absorption intensity ascribed to ionic groups” or “infrared absorption intensity ascribed to ether groups”, by the recitations of “the infrared absorption intensity” of the last three lines of claim 1. It is unclear how “a relative infrared absorption intensity” can be “determined using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ”. The polymers in question contain vinyl ether monomers that do not contain carboxyl ions but would contribute to the ether group peak, e.g. page 26, lines 5-6 and 16. Thus, one cannot determine a relative infrared absorption intensity only “using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ”. This is not what the instant enabling specification appears to have done based on page 29, lines 1-19, though specifically what was done is somewhat vague even in this section of the specification.

It is unclear “when an upper limit of an infrared absorption intensity ascribed to ionic groups to be formed upon addition of said alkali to said block copolymer is supposed to be 100% in terms of a relative infrared absorption intensity determined using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ”. The factors deemed as meeting this supposition are not specified definitively. It is unclear what is intended by “in terms of a relative infrared absorption intensity determined using as a standard an infrared absorption intensity ascribed to ether groups at $1,119\text{ cm}^{-1}$ ”. It is specifically unclear how these unclear “terms” are used to establish “when an upper limit of an infrared absorption intensity ascribed to ionic groups to be formed upon addition of said alkali to said block copolymer is supposed to be 100%” because these terms, e.g. how this is done, is not specified definitively.

6. Claims 1, 3, and 4 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st and 2nd paragraphs, set forth in this Office action.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Patrick D Niland/
Primary Examiner
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